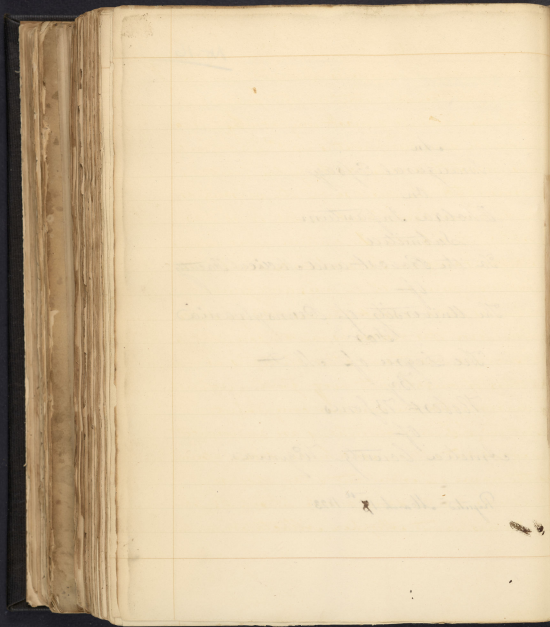


An
Inaugural Essay
on
Cholera Infantum
Submitted
To the Provost and Medical Faculty
of
The University of Pennsylvania
For
The Degree of M. D.
By
Robert B. Jones
of
Amelia County, Virginia.

Revised March 18th 1823



in pretty nearly the following words, "The Cholera Morbus I consider to be a bilious Fever settled in the Bowels; it appears at the same time, is produced by the same Causes, and requires the same treatment." The ~~Infantum~~^{Infantum} is closely allied to the bowel affections of adult life, and like them purely Gastric affection!

In Confirmation of this Opinion it will be recollected, that the Cholera Infantum and Cholera Morbus, always make their appearance after very hot and dry Weather has been succeeded by sudden Cold or Rain; again, it was most frequent among the poorer Class, who are not only exposed to the vicissitudes of the Weather, but also to all manner of exhalations, which may arise from Putrescence, or Miasmata; hence the Stomach may be affected through the medium of the external surface, owing to a Constriction of the Skin, or by direct impressions from exhalations. It will therefore be perceived that this theory, which is also entertained by Doctor Chapman, is very readily explained.

Doctor Enall's Martin of the Eastern shore of Maryland, a Physician of Considerable eminence, who has had Consid-

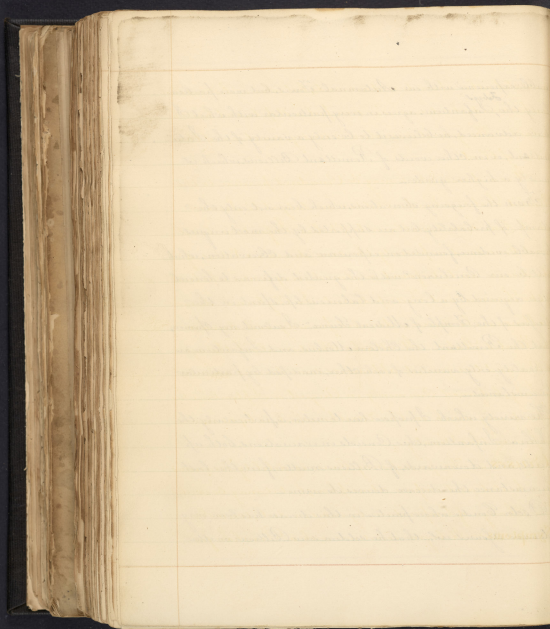
[Faint, illegible handwriting visible through the paper, likely bleed-through from the reverse side.]

nable experience with our Autumnal Fever, but more particularly the ^{Febrile} Infantum, agrees in every particular with what I have advanced, he believes it to be only a variety of the Intermittent, or in other words of Remittent Billious, which is merely a higher grade.

From the foregoing observations, which bear not only the stamp of probability, but are supported by the most unquestionable evidence, founded on experience and Observation, what will be our Conclusion? with the greatest deference to knowledge, acquired by a long and laborious life, spent in the "Recesses of the Temple of Medical Science," I submit my Opinion, that the Remittent, the Cholera Morbus, and Infantum are in reality only varieties of each other, modified by particular Circumstances—

The variety which I propose here to notice, is particularly, the Cholera Infantum, this Consists in evacuations, both upwards, and downwards, of Billious matters, from this last Circumstance the disease derives its name—

Doctor Condie whose practice in this disease has been very extensive assures us, that he seldom saw Billious matters

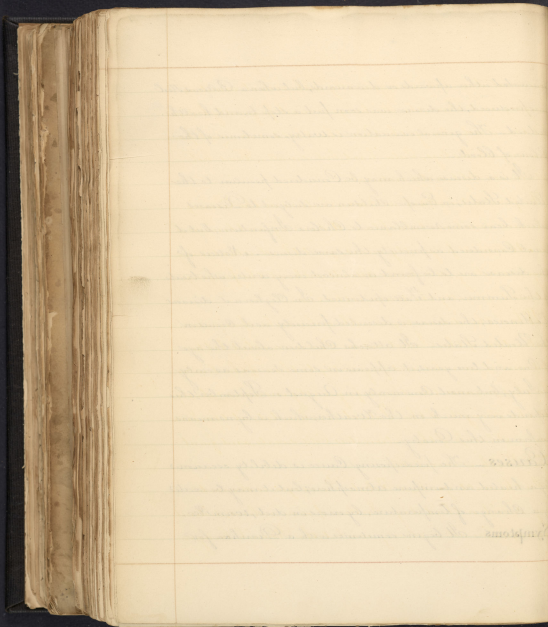


evacuated either upwards or downwards, but when a Bilious stool was produced, the disease was soon put a stop to, and health restored. The general evacuation is watery, sometimes of the Colour of blood.

It is a disease which may be Considered peculiar to the United States; in Europe Children are subject to Diseases which bear some resemblance to Cholera Infantum; but it is not Considered as precisely the same disease. Notices of the disease are to be found in almost every writer who treats of the Summer, and Fall epidemics. In Coghens disease of Malinorea, the disease is described, precisely as it occurs in the United States. It attacks Children about the age of One and two years, it appears in some seasons as early as July, but most Commonly in August or September, this depends very much on the Weather, which is by no means uniform in this Country.

Causes - The predisposing Cause is debility occasioned by a heated and impure atmosphere; but it may be excited by a Change of temperature, by errors in diet, &c.

Symptoms - It begins sometimes with a Diarrhoea for

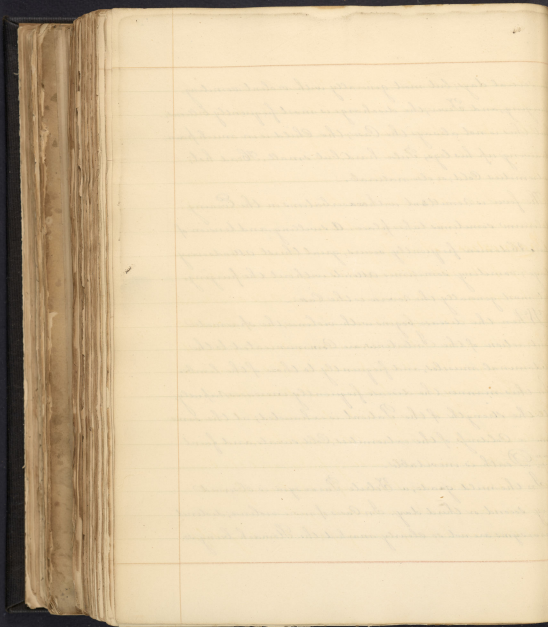


In several days; but most generally with violent vomiting,
 purging, and Fever; the discharge is most frequently bilious,
 but this is not always the Case; the Child is in much pain,
 drawing up his legs; Pulse hard, but small. Head hot,
 extremities Cold; or else natural.

The fever is remittent with exacerbations in the Evening;
 delirium sometimes takes place. A swelling, and tension of
 the Abdomen frequently occurs, great thirst attends every
 stage; vomiting sometimes attends without the purging;
 but most generally the reverse is the Case.

When the disease begins with violence, the spasmodic
 Contraction of the Intestines, are Communicated to the
 Abdominal muscles, and frequently to those of the limbs.
 In this manner the disease frequently increases rapidly,
 till the strength of the Patient is exhausted; at the same
 time a Coldness of the extremities, Cold sweats, and faint
 ing. ^{ness to} Death is inevitable.

In the mild grade, a Febrile Paroxysm is observed
 every second or third day. In Cases of more violence, distinct
 Paroxysms are not so clearly marked, the Stomach being so



Constantly disordered". (Doctor Martens Letter)

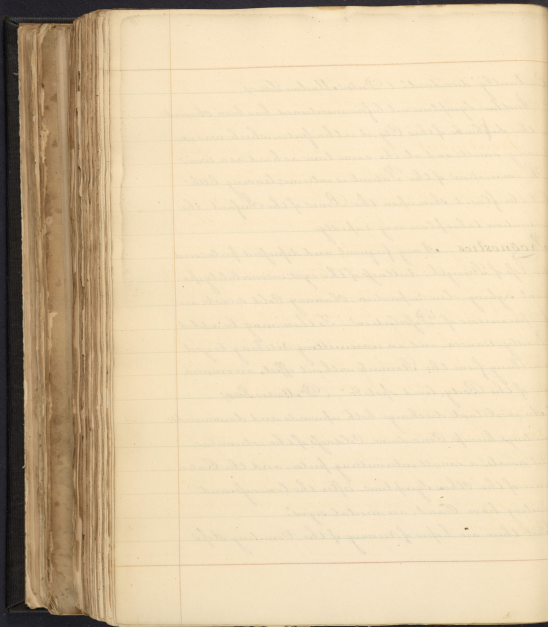
Another symptom not before mentioned has been observed in the Infants of this City, it is the pulse, which was extremely small, and at the same time as hard as a wire.

The emaciation of the Patient is extreme; leaving little but the flaccid skin upon the Bones of the Infant. the emaciation takes place very rapidly.

Prognostics. A very frequent and depressed pulse; sudden loss of Strength; dullness of the eyes; insensibility; frequent sighing; slow Respiration; clammy Cold sweats, are the precursors of Dissolution. To these may be added; Deadly Nausea, and an unremitting retching to eject something from the Stomach without effect, an emaciation of the Body, livid spots &c." (Dr. Martens Letter)

"An exuberant discharge both upwards and downwards; faintings, hiccups, Convulsions, Coldness of the extremities, Cold sweats, a small intermitting pulse, and the Continuance of the other symptoms, after the looseness and vomiting have ceased, are mortal signs."

"But there are hopes of recovery if the Vomiting stops



sleep succeeds, and the Patient appears to be Relieved; and
 also if the disease be protracted beyond the seventh day"
 (Sydenham)

Treatment. "Whenever a Child in the autumnal season is taken with a Nausea, and vomiting, and exhibits symptoms of approaching Fever; as a dry and hot skin, and quickened pulse, we may consider the Cholera Infantum as having Commenced, and instantly prescribe for a Child, say two years old, Calomel \mathcal{R} grs; to be repeated the next day, unless some Symptom forbid it. If this is done before a Complete paroxysm of Fever has taken place, it generally arrests it; but if otherwise it has the happy effect of Obviating for the present, all affections of the Stomach and Bowels."

(Doct. Astruc's Letter)

"We are seldom Called however before the Disease is Completely formed; it then becomes necessary to pursue a different Course of practice, our first Object in this Case is to allay irritation, this being done, we should resort to evacuations."

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

the number of the first of the month of the year
the number of the first of the month of the year

To meet the first indication the Warm bath and Anodyne
 Injections stand preminent. Sinapisms, Cloths wrung out
 with Spirits, with Tinct Opii are beneficial.

As an injection the following is recommended -

R. T. Opii - ℥ss XL

Gum Arabic 3 ij

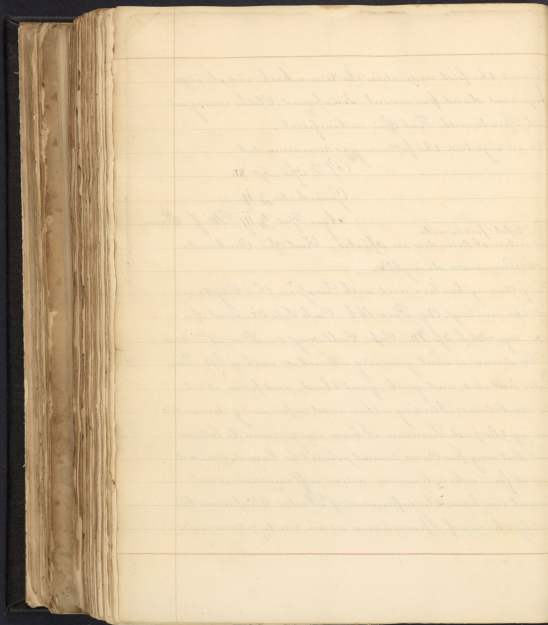
Aqua Spid 3 iij M. f. Enem:

Refut. fero se nata.

The internal remedies are Opiales - Tinct Opii Combined
 with Cinnamon draughts.

The following has been used with Success in this City to ar-
 rest the vomiting. Ag. Pure lb i - Carb. Soda 3i - Tinct Opii
 ℥ss - Ag. menth 3ss M. Cap: Cochl. mag: om. 3rd & 4th here

The disease is most generally ushered in with a hot short
 Pulse irritated and quick, great thirst, and pain about
 the Umbilicus; Bleeding is then most imperiously demanded.
 During the past Summer I have every reason to believe
 that but very few Cases occurred, when the lancet was not
 called for - when however active inflammation is not
 present we have the experience of Doctor Chapman to
 justify the use of Spicacucana as an emetic; it evacuates



gives a tone to the System, equalizes excretion, and determines to the skin.

Having thus prepared the Stomach for the reception of our wants we may give *℞ Calomel*. Opium salts &c. if not a very young Child Calomel either alone or Combined with Opium; it may be made into Pills with Conserve of Roses by mixing *Calomel ℥ss* to *Opium ℥ss* to be divided into Ten Pills, one to be taken every half hour.

After evacuations have been premised considerable irritation generally remains, we must therefore endeavour to calm irritation, and determine to the Surface with this Object in view the following is recommended.

℞ Calomel ℥ss
Opium ℥ss
Specac ℥ss
Conserve Rosar q.s
M. f. Pil. viij

℞ Clapial, Omni quatuor hora indic

When the pain and irritation are violent, we may increase the Opium, or resort to Anodyne Injections, this sparsely Calms

1841
1842
1843
1844
1845
1846
1847
1848
1849
1850
1851
1852
1853
1854
1855
1856
1857
1858
1859
1860
1861
1862
1863
1864
1865
1866
1867
1868
1869
1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900

the Stomach after which the other symptoms will generally subside.

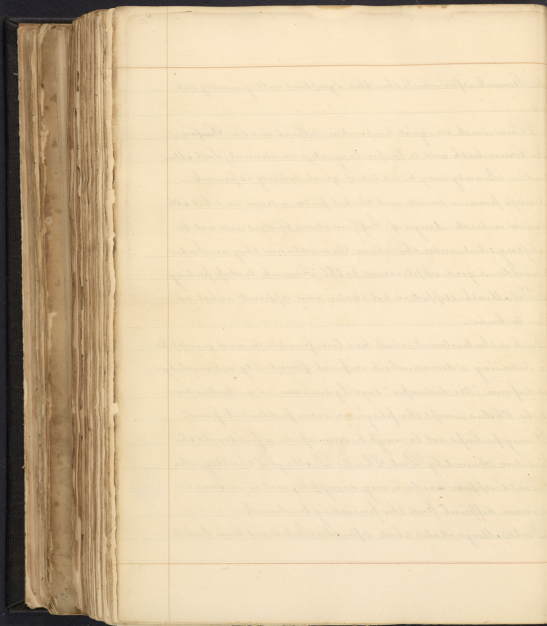
If there is not an equal temperature diffused over the Surface, the warm bath will be proper to equalize excitement, Salt & Mustard or Brandy may be added if great debility is present.

Unless pain, a small and rapid pulse, a tense and hot skin, &c. indicate danger of Inflammation, blisters will not be necessary; but under the above circumstances they are indispensable. a good application to the Stomach to stop puking is Sol. Menth. steeped in hot water and applied as hot as can be borne.

Such is the treatment which has been found to be most successful in subduing a disease, which in point of mortality acknowledges no superior. "No distemper" says Sydenham "is as destructive as the Cholera, except the plague or some pestilential fever."

It may perhaps not be amiss to sum up in a few words the practice observed by Doct. Charles D. Briggs of this City, who it would appear has been very successful; as it is in some manner different from the preceding treatment.

Doctor Briggs states that after the Intestines have been



Cholera Infantum.

By Cholera Infantum is understood in the United States, the vomiting and purging of children. From its almost uniform^{ly} occurring in the summer months in Philadelphia, it is frequently, and especially by the vulgar, denominated the disease of the season, or the summer complaint. Dr. Rush has asserted, that Cholera Infantum never makes its appearance in Philadelphia until the middle of June, or 1st of July; and generally continues until about the middle of September. Were this disease as much confined to the summer months in other climates, as it is in this, it might with very great propriety be denominated the summer complaint.

But in ^{Cholera} ~~Cholera~~ its morbidities are announced in April and May; and hence it then assumes the name of April and May disease. It appears to be the same disease, which Dr. John Blayne has named *Atrophica Abactatorem*, but

ing merely a Latin translation of its common
 the vulgar name, by which it is known in Scot-
 land. The phenomena of the disease as it appears in
 the two countries, are not, however, precisely similar.
 But this is not expected to be the case in a disease
 depending so much on climate; nor is there a
 greater dissimilarity in them, as described by Dr
 Sydenham and Dr Chapman, than we might expect
 a ~~difference~~ from the difference in the climates; espe-
 cially when we see how much the disease among
 us depends upon temperature, I conceive these opin-
 ions receive a strong corroboration from the obser-
 vations of Dr Sydenham. The duration of Shaken
 Infanthum he says is varied by the seasons of the
 year, and by the changes in the temperature of
 the weather. A cool day frequently abates its violence
 and disposes it to a favourable termination.
 The great equality of the climate of Great Britain
 we should expect would render its occurrence less
 frequent and less confined to particular seasons

its symptoms less violent, and more tractable, and its progress less rapid, even when advancing towards an unfavourable termination.

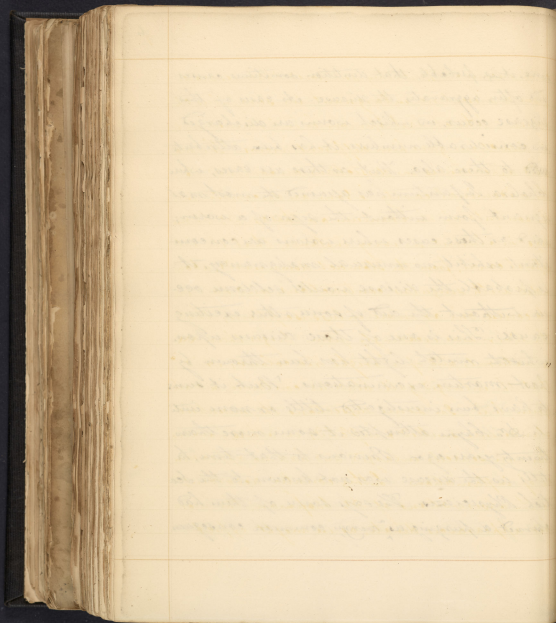
We have already shown, that in Philadelphia it is a disease of the summer months. Dr. Sympson considers it to be generally a disease of the autumnal months in Scotland. He says he has seldom seen it commence before the summer solstice, or after the end of the year, being most prevalent in sickly seasons. In his treatise on this disease he has published eleven cases, three of which commenced in May, one of them as early as the 6th and one case which commenced about the middle of November. The dates of these do not correspond exactly with the limits he has assigned, but they show that the period of its prevalence is about twice as long in Scotland, as Dr. Rush has assigned to it in this City. In that country the disease is seldom fatal within the 6th or 7th week, but in Philadelphia the disease is sometimes

The first of these is the fact that the
 country is a very fertile one, and
 the soil is very rich. The second is
 the fact that the climate is very
 healthy, and the air is very pure.
 The third is the fact that the
 country is very well watered, and
 the rivers are very numerous. The
 fourth is the fact that the
 country is very well cultivated, and
 the crops are very numerous. The
 fifth is the fact that the
 country is very well settled, and
 the population is very numerous.
 The sixth is the fact that the
 country is very well governed, and
 the laws are very numerous. The
 seventh is the fact that the
 country is very well educated, and
 the schools are very numerous. The
 eighth is the fact that the
 country is very well clothed, and
 the clothes are very numerous. The
 ninth is the fact that the
 country is very well furnished, and
 the furniture is very numerous. The
 tenth is the fact that the
 country is very well equipped, and
 the equipment is very numerous.

fatal within a few days, and Dr. Chepman has seen a case where it terminated fatally within twenty four hours. Of these differences in the disease, as it appears in the two countries, we shall say more presently. The predisposing cause of Cholera Infantum consists in the debility induced by the operation of the heated and impure air of large cities. The heated atmosphere probably produces some derangement in the functions of the biliary apparatus, thereby changing the character and quality of the bile. This probability is generally strengthened by the very common known effects of a tropical climate upon this apparatus. The principal exciting causes are improprieties in diet and clothing, especially the abrupt change from breast-milk to common food, and at a season when the chylific viscera possess the greatest irritability. It is also brought on by sudden changes in the humidity and temperature of the air or other circumstances, that would suddenly obstruct perspiration.

tion. Among improprieties of diet, Dr. Rush reckons the various kinds of fruit. This opinion has been controverted, but it is supported on the best authority. Stentition has been reckoned among the exciting causes of this disease; But as it appears only in warm weather when there are other exciting causes of this disease, and as there are no cases of it connected with stentition in cold weather, those circumstances would seem to furnish an argument to refute the opinion. This argument however, is not conclusive for why should stentition, more than the other exciting causes produce the disease, ^{when} ~~as it appears~~ the predisposing cause is wanting. During stentition the secretion of saliva is increased and the bowels sometimes rendered irritable and we are told by Mr. Burns that bowel complaints are produced by it. As the child is most obnoxious to the disease the second summer, and as it is about that time, that the process of stentition is produced and most troublesome.

me, it is, probably, that dentition sometimes causes and often aggravates the disease. As cases of this disease occur, in which worms are discharged in considerable numbers, it has been attributed also to these also. But as there are cases, where cholera infantum has assumed the most malignant form without the sign of a worm; and as those cases where worms are concomitant, exhibit no unusual malignancy, it is probable the disease would seldom occur without the aid of some other exciting cause. This is one of those diseases upon which much light has been thrown by post-mortem examinations. But it seems to have been investigated little or none until Dr. Sydenham attempted it some more than twenty years ago. Previous to that time, he tells us the disease was not known to the Sea-side Physicians. He says some of them had observed a purging as ^a very common consequence



ce of weaning; But they supposed that it arose
 from a mesenteric enlargement in scrophulous ch-
 -bolren "Whitely last opinion he entertained, unt-
 -all dissections gave him different views. The mor-
 -bid appearances in dissections are confined to
 the abdominal cavity. None are discovered in
 the contents of the cranium or thorax. Dr. Whym
 says "he observed in every instance, that the int-
 -estinal canal, from the stomach downwards, abou-
 -noded with singular contractions, and had in
 its course one or more intussusceptions; that
 the liver was exceedingly firm, larger than na-
 -tural, and of a bright red colour; and
 that the enlarged gall-bladder contained a dark
 green bile. In some dissections the mesenteric
 glands were swelled & inflated; in others, however,
 they were scarcely enlarged, and had no appearan-
 ce of inflammation. In this country, according
 to the observations of Dr. Chapman, the mor-
 -bid appearances denote, as we might expect

more violent action. Marks of previous inflammation may be seen in the whole extent of the alimentary canal, confined principally to the mucous membranes. Dark livid spots are to be seen on this coat in the stomach and small intestine, but particularly in the duodenum. The jejunum is particularly affected, but the morbid appearances on it are not considerable. The hepatic apparatus is much enlarged, the liver being very generally if not universally enlarged, and considerably altered in its condition. The vena porta is indurated but more frequently it is soft and flabby in its texture. The gall bladder is usually filled with bile variously vitiated and altered in its nature. In Scotland the disease is generally slower in its progress it there is more of a chronic nature, we should calculate upon finding the liver there more frequently and firming a more indurated, and might expect also to find as we do

in this country more evident marks of inflammation. From investigations Dr. Byrne and Dr. Chapman are both led to the conclusion, that Cholera Infantum is a gastric affection in its commencement, and that the hepatic system is sympathetically drawn into a state of disorder. The difference in the disease, as it appears in Scotland and the United States, seems to consist in this; In that country the predisposing cause acts so fully, that the disease will be produced only when the exciting cause acts most powerfully. And as the abrupt weaning of the child, that is, the change of breast milk for common food is the most powerful exciting cause we might expect most cases of Cholera Infantum to succeed weaning, and that it might appear so after weaned with, or to succeed weaning, as to acquire its vulgar name of weaning brash. As the disease depends then so much more upon

the exciting cause, whose operations cannot be confined to the summer months, we should not expect it to be ~~the~~ so limited, as we find it when the predisposing cause acts most powerfully. Accordingly we find that the disease reported by Dr. Syne occurred at various periods from the early part of May till about the middle of November. One reason, why this disease does not occur here as frequently in the autumnal months as in Scotland, is that the predisposing causes here act so powerfully, that the disease is developed in all, who are obnoxious to it before the end of summer and that those, who have resisted the predisposing and exciting causes during the summer months, will without difficulty resist the latter when the former no longer exist; For it can hardly be said, to exist here after the middle ~~the~~ ~~middle~~ of September, so great is the difference between our summer and

antum. Treatment. To impress one with the importance of thoroughly understanding the treatment of this disease, it is sufficient to examine the bills of mortality in our ~~country~~ cities and large towns. For notwithstanding the nature of the disease is as Dr. Chapman says, "is well understood and the treatment greatly improved; it still continues, even at this improved, and enlightened state of medical science, to destroy multitudes of Infants and even in more favourable cases to prove in a high degree obstinate and distressing. The diversified appearance that Cholera Infantum assumes, is not less difficult to be distinguished, than comprehended. It is sometimes connected with the Animal Epidemics which occur in sickly countries, and at other times more familiarly recognised in the forms of Remittent and Intermittent fevers. It is pretty generally agreed by the Physicians of the United States, and particularly

impressed on the minds of the students by Dr Chap-
man's remarks that a retreat from an unhealthy
situation, and particularly a change from the
air of cities to some salutary part of the adja-
cent country is one of the best means, both to
prevent and to cure the disease. The evidence
in favour of this opinion must be obvious,
and admitted by every one. But there is a la-
rge part of the community, upon whose circum-
stances in life, fortune has never smiled, and
consequently, are prevented from embracing
such advantages. In this case the best effec-
tive must be resorted to, of which the circum-
stances of the individual will admit. The first
indication which presents itself in the case of
this disease is to evacuate the stomach and
intestines of their acid contents. In effecting this
purpose, some difficulty occurs in the outset,
as to the choice of the means.
It is probable, that there can be as an onset

it, and calomel or castor oil as a purgative, would answer very well. But when the stomach is in a state of great irritability, convulsed, and spontaneous vomiting has taken place, an emetic would be highly improper and dangerous. Before the administration of such a remedy, the violent action of the stomach should be quieted, or allowed to subside; and when it is discovered, that all the offending matter has been evacuated by spontaneous vomiting, it may be improper to administer an emetic. Or if there be great loss of strength and the disease should have proceeded with great violence, producing pulsus of pulse and a receding of heat from the extremities, an emetic would be very hazardous and attended probably with the most serious consequences. But it is stated by Dr Darwin, that an emetic which soon ceases to operate will very frequently leave the stomach

stronger than before, which he says is due
 to an accumulation of excitability during
 the stomach's inverted action. To relieve
 any doubt on this subject, it would be prop-
 er, when it is found that the primæ viæ re-
 main evacuating to administer a dose of ca-
 ther oil or calomel, the dose to be accommo-
 dated to the age of the patient and other cir-
 cumstances. Calomel, particularly in
 cholera combined with opium, is recom-
 mended by Dr. Chapman as being a very
 successful practice in doses of one eighth
 to one quarter ^{of a} grain of Opium and from
 one to three grains of Calomel divided into
 eight or ten powders, to be given every two or
 three hours. If this produce too frequent dis-
 charges the opium is to be increased. Cholera
 Infantum being primarily a gastric disease
 such, sometimes, is the irritability of the
 stomach that no medicine will be retained.

It then becomes necessary to calm the stomach and
 allay irritation by anodyne injections, by fomentat-
 ions to the stomach and the warm bath, except
 however in cases of very small children, the com-
 bination of calomel and opium is thought to
 be preferable. Dr. Miller prefers it for several
 reasons. The first is the ease with which it may
 be administered. The bulk is so small that it
 may be easily enveloped so as not only not nau-
 seate, but to be quite agreeable. The second reason
 is that the specific gravity of calomel renders
 it very difficult to be dislodged from the sto-
 mach, even by the most violent vomiting.
 The third is that when calomel and opium
 are combined in this way, they can be given
 in much larger doses, than they can
 separately as they are believed to soften and
 correct the powers of each other. Fourth is
 when the disease takes on a fatal tendency, and
 there is reason to believe effusion in the

head or destruction of the organization of the stomach and bowels, unless the fatal termination takes place at a very early period, it is the best calculated of all our remedies to arrest that tendency. Fifthly Calomel when exhibited in small doses combined with opium, excites a strong absorbent action in the stomach and intestines. The metallic salts are said to possess more or less of the same power; and the activity of the absorption is found to be in proportion to the completeness of the evacuation previously made by the Calomel alone, or other evacuating means; As absorption is generally increased by depletion, whether by means of the lancet or purgation. It is now pretty generally agreed among Physicians that Calomel although gentle and safe in its operation is the most effectual and penetrating of all the medicines employed to cleanse the primæ viæ. Sometimes the irrita-

tility of the Stomach is so great that violent vom-
 iting takes place almost every minute, accompanied
 with thirst, accompanied and pain about the epi-
 gastric region with fever and quick pulse. It would
 be proper in such cases to evacuate the stomach
 with Spueae, which relieves it of the disordered
 determining action from that part to the surface.
 But when there are a weak pulse distended
 countenance, cold clammy sweats, eyes sunk
 and indicating a sinking condition of the system,
 we should avoid an emetic and resort to
 stimulants, such as are demanded in all bowel
 complaints attended with fever; After having
 prepared the stomach for the reception of Medi-
 cine, the effect of mercurial purges may be tried
 with some probable advantage; especially when
 combined with opium or opium itself. Not-
 withstanding there are other purgatives in high repu-
 tation that might be employed with tolerable success,
 yet the superior efficacy of mercury in discha-

-ging substances whether bilious or of any other
 description, not easily removable by other purga-
 tives, is well known to every physician, who has
 had an opportunity to compare them. Dr. Sydenham's
 testimony in its favour is every where unequalled:
 Indeed he seems to place almost his whole reli-
 -ance on it. He was induced to try it for the
 first time in a cholera case by way of expulsion
 only. Since this case he says, "I have had the useful-
 ness of calomel proved by many additional ca-
 ses and now I have the firmest belief, that it
 will prove effectual at a stage of the disease,
 when no other medicine will, that I am acquain-
 ted with, would be attended with any perman-
 ent benefit. But to collect the testimony of other
 writers in favour of the use of calomel in the bowel
 complaints of children would be embodying the opi-
 -nions of a multitude, and to cite authority, to estab-
 -lish a point not contested, would be unnecessary.
 In the advanced stage of cholera infantum,

allum may be frequently be employed beneficially. Having evacuated all acrid and offensive matter from the alimentary canal it is recommended to commence with small doses. Half a grain of allum in combination with a small portion of opium, to be gradually increased may be administered in a pill. The Saccharum saturni, combined with Opium, has been advantageously employed of late. When only a troublesome Diarrhoea remains, some of the vegetable astringents may be tried with advantage. In addition to internal remedies it will often be advantageous and even necessary to have recourse to such external remedies as produce a determination to the surface and equal excitement. This is an indication of no small importance; and the most safe and efficacious means of accomplishing it are the warm bath and blisters. The excitement is often very unequal, the extremities being very cold, while there is a burning heat in and about the scap

Handwritten text, likely bleed-through from the reverse side of the page. The text is written in cursive and is mostly illegible due to fading and the angle of the page. It appears to be a continuous paragraph or a series of connected notes.

of the disease. The warm bath is probably more speedily in its operation and more agreeable, but probably less efficient and less permanent than blisters. These may be applied to the stomach, abdomen, or extrastatics at different stages of the disease, according to circumstances.

When the stomach becomes too debilitated to digest food and too irritable to retain the ingesta, the alkaline preparations, combined with mild aromatic tonics are sometimes given with advantage. But cases of this kind frequently occur, in which no means accomplish our wishes, so well as the Seltzer water. Anodyne injections are very beneficial, and in some cases seem to be our best remedy. The diet should be light and consist of liquid farinaceous preparations, sweetened with loaf sugar, to which some mild aromatic may be added, when no febrile symptoms exist. The patient should be allowed only a small quantity of drink at a time, as they are

inclined to drink often. although this disease occurs at a season when little or no sleep seems necessary for the comfort of the patient.

It is never the less important in the management of it to attend to sleep especially where we see such great inequality in the excitement.

The patient should be clothed in flannel, particularly the extremities. Sweet gutta serena, are the views, I have adopted of the character, causes, and treatment of this disease.

Should they be found accordant with your experience and observation, and the doctrines you have thence deduced, I will hope, that this exposition of them, notwithstanding its defects, will meet your approbation.

Robt To Jones.

